

# DIME Dynamic Documentation

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DIME

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- ▶  $\text{\LaTeX}$  allows us to create a document once and every time a do-file is run, the tables are automatically updated in our  $\text{\LaTeX}$  document.
- ▶ This saves us a lot of time in the long run even though the learning curve for  $\text{\LaTeX}$  is a bit complicated compared to MS Word.

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- ▶ Generates Table of Contents, list of Figures, list of tables automatically.
- ▶ Open source and standard across any version/editor of LaTeX, ShareLaTeX, etc. (not the same with Word i.e. formatting gets messed up between different version of Word).

# And....

- ▶ Documents can have comments as well. So you can write notes to yourself, future ideas which only you can read!



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# What is L<sup>A</sup>T<sub>E</sub>X?

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- ▶ Very flexible as every setting can be defined by the user.
- ▶ Saves a lot of time in formatting.

# How does TeX work ?

```
% ----- Preamble -----  
  
\documentclass{article}  
  
% Load the packages you're going to use  
\usepackage{import}           % This package allows us to import files.  
\usepackage{adjustbox}       % This package allows you to adapt table and figure sizes to fit the page and is  
required by iebaltab  
\usepackage{setspace}        % Making table of contents/figures/tables clickable, so you get to exactly that  
\usepackage{hyperref}        section.  
\usepackage{float}           % This package allows us  
  
% ----- Preamble ends here -----  
  
\begin{document}  
  
    Here comes whatever you want the content of your document to be  
  
\end{document}
```

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- ▶ Template 1 shows how to import tables.
- ▶ Template 2 shows how to import figures.
- ▶ Template 3 displays some more advanced options and features of  $\text{\LaTeX}$ .



# Preamble

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section.  
\usepackage{float} % This package allows us  
\usepackage{graphicx}  
\usepackage{subcaption}  
  
% Formatting packages  
\doublespacing % Uncomment to use double spacing  
\usepackage{indentfirst} % Indents the first paragraph of each section  
\usepackage{parskip} % This packages sets the spacing between two paragraphs  
\setlength{\parskip}{.5\baselineskip} % Define spacing between two paragraphs  
  
% ADD YOUR PROJECT INFO HERE  
\title{Project ABC \\ Subtitle XYZ} %Double backslash starts a new line in \LaTeX  
\author{Your Name}  
\date{\today}  
%date{} % Uncomment this to not print date or insert specific date  
  
% ----- Preamble end here -----
```

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- ▶ `\usepackage{package_name}`  
You need to load the packages you want to use in the beginning of every file, otherwise it will not compile once you use the package.
- ▶ `\title{document_title}`  
The document title is defined in the preamble and later printed, as well as *authors* and *date*

# Headers

```
% ----- Preamble ends here -----  
  
\begin{document}  
  
\maketitle  
\tableofcontents  
  
\newpage  
\listoffigures  
\listoftables
```

<code>\maketitle</code>	Print the document's title, authors and date in the first page.
<code>\tableofcontents</code>	Prints a summary with all the sections and subsections.
<code>\newpage</code>	Insert a page break.
<code>\listoffigures</code>	Prints a list of all the figures in the document.
<code>\listoftables</code>	Prints a list of all the tables in the document.
<code>Comments</code>	Adding "%" before text comments it out.

Project ABC  
Subtitle XYZ

Your Name

May 9, 2017

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# Creating Sections

```
\begin{document}  
  
\maketitle  
\tableofcontents  
  
\newpage  
\section{This is the first section}  
  \subsection{This is the first subsection of the first section}  
    \subsubsection{This is the first subsubsection of the first subsection of the first section}  
  
\end{document}
```

## 1 This is the first section

### 1.1 This is the first subsection of the first section

#### 1.1.1 This is the first subsubsection of the first subsection of the first section

# Writing in your document

```
\section{Information on what you're doing}
```

If you need to write something related to the project, write it here before the tables start. Otherwise you can just delete this section and just start with the tables.

```
\textbf{This is a bold text.} \newline \textit{This is an italicised text.} \\  
\underline{This is an underlined text.}
```

```
%\newline starts a new line. \\ does the same.
```

Just pressing Enter/Return key and starting in a new line works too.

```
%This is a comment. I can write anything here and nobody will be able to see it  
except me.
```

## 1 Information on what you're doing

If you need to write something related to the project, write it here before the tables start. Otherwise you can just delete this section and just start with the tables.

**This is a bold text.**

*This is an italicised text.*

This is an underlined text.

Just pressing Enter/Return key and starting in a new line works too.

# Importing images to your document

```
\begin{figure}[H]
  \centering
  \includegraphics[width=\textwidth]{Raw/iegraph.png}
  \caption{Regular image: iegraph}
  \label{fig:my_label}
\end{figure}
```

- ▶ Each figure starts with `\begin{figure}` and `\end{figure}`
- ▶ **[H]** prints the figure as close as possible from where it appears in the text
- ▶ `\centering` centers the figure (oh, really?)
- ▶ `\includegraphics` is what actually imports your image:
  - ▶ `[width=\textwidth]` adjusts the size of the figure to the page. Alternatively, `[width=0.x\textwidth]` makes it smaller.
  - ▶ The path to your figure must begin from the same folder where your .tex file is!
- ▶ `\caption{Name of your figure}`
- ▶ `\label{fig:my_label}` allows you to cross-reference the figure on the text by typing `\ref{fig:my_label}`



# Importing tables into the document

```
\begin{table}[H]
  \centering
  \caption{Descriptive statistics for categorical variables}
  \begin{adjustbox}{max width=\textwidth}
    \input{Raw/categorical}
  \end{adjustbox}
\end{table}
```

- ▶ Each tables starts with `\begin{table}` and ends with `\end{table}`
- ▶ `\begin{adjustbox}{max width = \textwidth}` adjusts the size of the table to the page. Alternatively, `{max width = 0.x\textwidth}` makes it smaller.
- ▶ `\input` is what actually imports you table
  - ▶ The path to your figure must begin from the same folder where your .tex file is!
- ▶ You can also use `\caption` and `\label` here. Typing `\caption{}` will print Table #, with no title.
- ▶ If `\caption` comes before the table itself, the title is above it. If it comes after, the title is printed below the table.

# Fragmented documents

```
{
\def\sym#1{\ifmode\#1\else\(^{#1}\)\fi}
\begin{tabular}{l*{4}{c}}
\hline\hline
&\multicolumn{1}{c}{Total}&\multicolumn{1}{c}{Europe and Asia}&\multicolumn{1}{c}{North
America}&\multicolumn{1}{c}{South America}\\
\hline
Control & 35 & 23 & 7 & 5 \\
Treatment & 33 & 21 & 7 & 5 \\
Total & 68 & 44 & 14 & 10 \\
\hline\hline
\end{tabular}
}
```

- ▶ The tables we export from Stata are actually fragmented documents
- ▶ These are TeX files with no `\begin{document}` or `\end{document}`, so they will not compile on their own
- ▶ We could simply copy and paste this document into our main LaTeX file, but then they would not be automatically updated

If you want to learn more

<https://en.wikibooks.org/wiki/LaTeX>